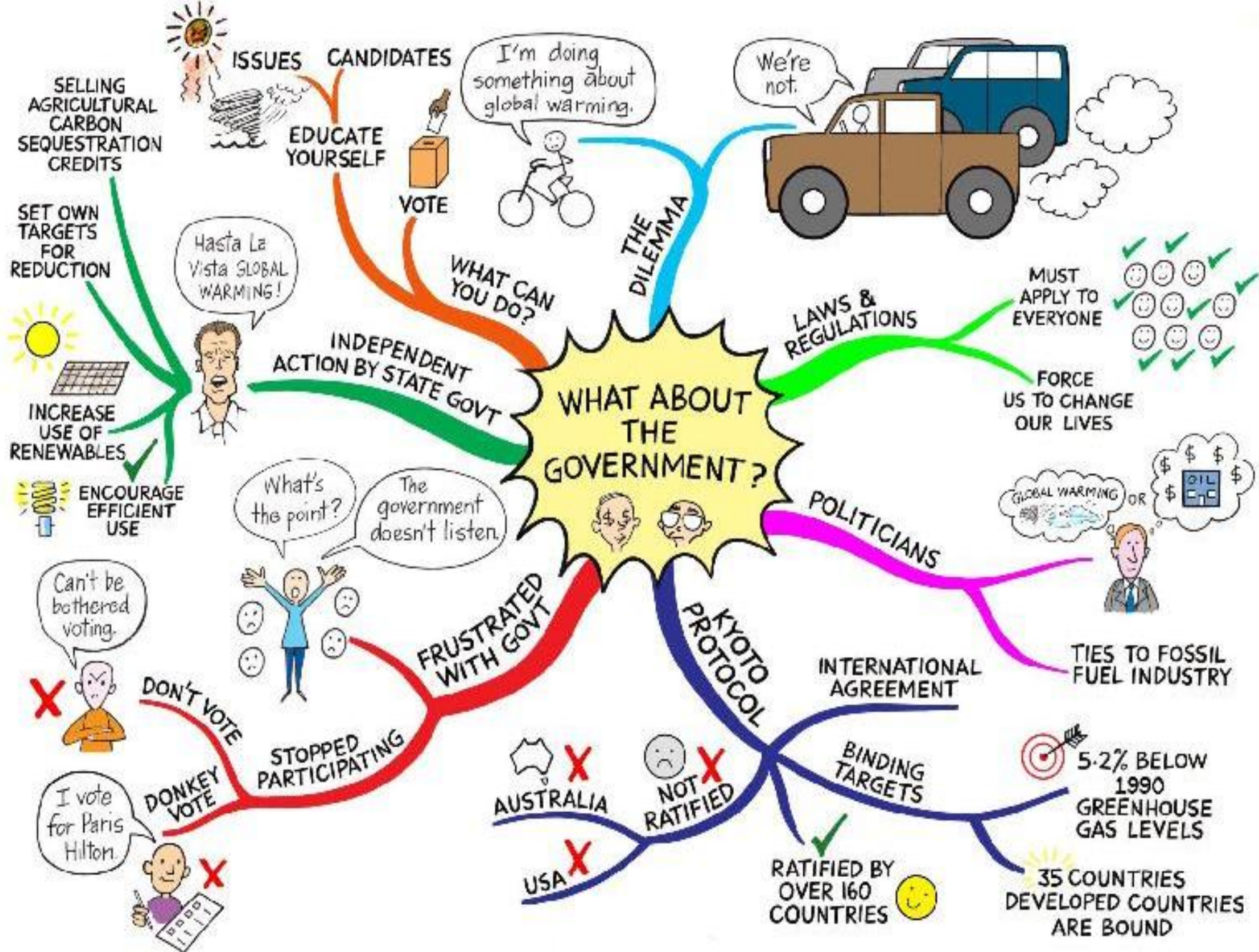


# Sustainability at City of Bellevue

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# Sustainability at City of Bellevue

## Overview

- Frameworks
- Benchmarks & Metrics
- Projects
- Policies
- Changing the Lens
- Collaboration
- Marketing & Outreach
- Challenges

# Frameworks

- ICLEI's 5 Principles

1. Conduct a baseline emissions inventory
2. Adopt an emissions reduction target
3. Develop a Local Action Plan
4. Implement the policies and measures in the action plan
5. Monitor, verify and report results

- The Natural Step →

- ESI Strategic Plan

- COB Comprehensive Plan

In a sustainable society, nature is not subject to systematically increasing...



...concentrations of substances extracted from the Earth's crust,



...concentrations of substances produced by society,



...degradation by physical means,

and, in that society...



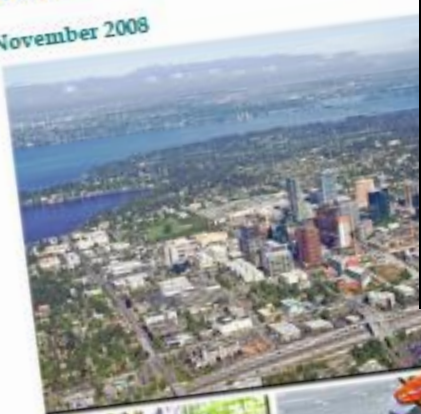
...people are not subject to conditions that systematically undermine their capacity to meet their needs.



# Guiding Documents

## City of Bellevue Environmental Stewardship 2009-2012 Strategic Plan

November 2008



Environmental  
Stewardship  
Initiative



1. Natural Assets
2. Built Environment
3. Climate & Energy
4. Water
5. Material Life Cycle



## City of Bellevue, Washington Greenhouse Gas Emissions Inventory

Completed October 2007  
Updated June 2008

ICLEI  
Local  
Governments  
for Sustainability

# Guiding Documents



## City of Bellevue Proposed Climate Action Plan for Municipal Operations September 2008



## Resource Conservation Plan

Version 2.0  
July 2010

Primary Author  
Emma Johnson  
Resource Conservation Manager

Plan Contributors and Review  
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Patricia Bur  
Karen Gor  
Nora Jo  
Jennifer Kz  
Frank  
Sheida ?

October 2008

## Urban Ecosystem Analysis City of Bellevue, Washington *Calculating the Value of Nature*

### Report Contents

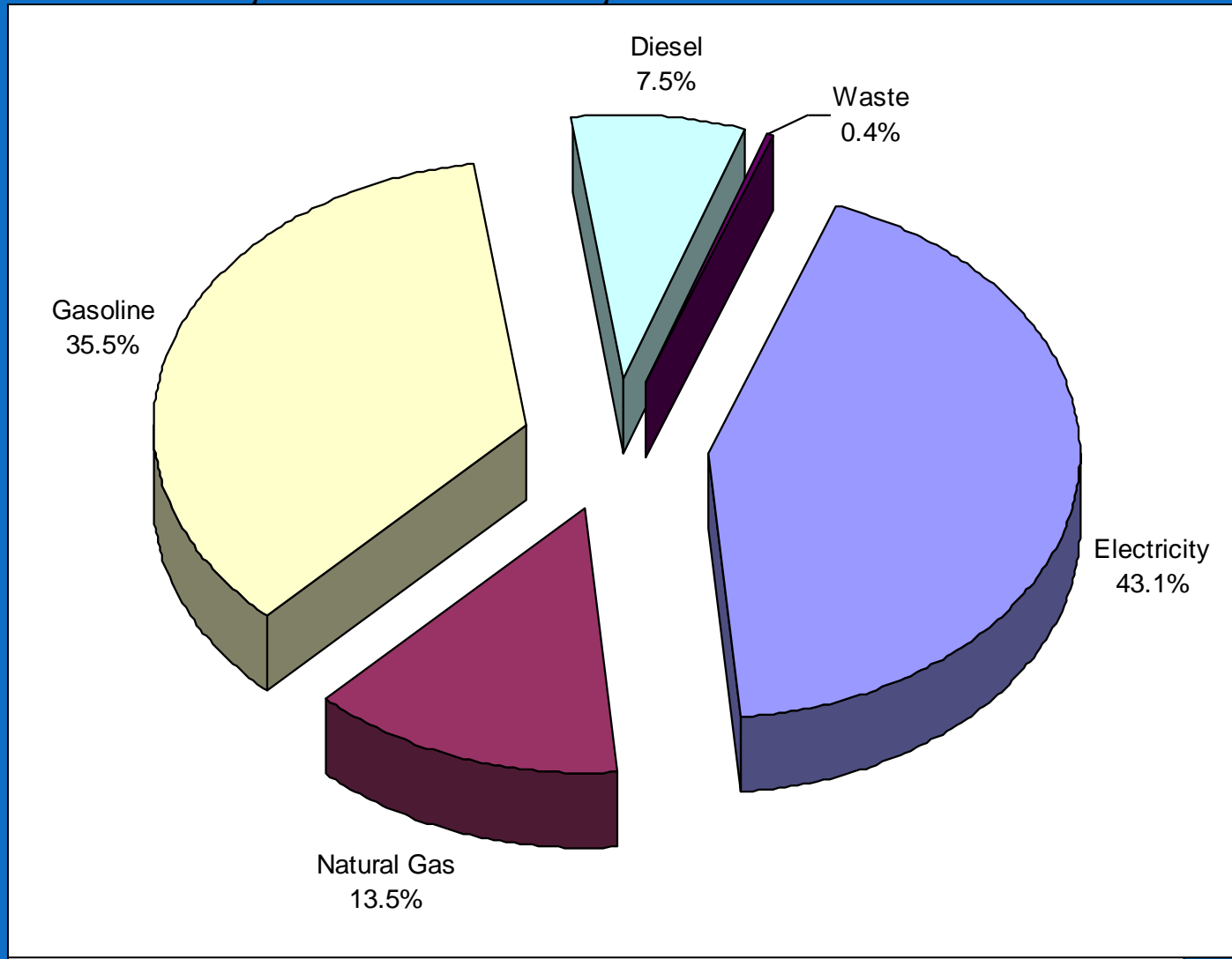
- 2 Project Overview
- 2-3 Major Findings
- 3-5 Forest Landcover Change Trends
- 6-7 Tree Canopy and Other Landcover Ecosystem Benefits by Landuse
- 8 Ecosystem Values of Green Infrastructure
- 9 Modeling Ecosystem Benefits of Recommended Tree Canopy Percentages
- 9-11 Recommendations
- 12 About the Urban Ecosystem Analysis



City Manager Charge: "Re-establish Bellevue as an environmental leader"

# Benchmarking & Metrics

Bellevue Community GHG Emissions by Sector – 2006



# Benchmarking & Metrics

## Key Performance Indicators:

- What indicators should Bellevue be using to measure it's sustainability performance?

- —

- —

- —



# Projects: Overview

## 2010 Project Achievements

- Operational
  - Energy Efficiency Achieved in City Buildings
  - Traffic Signal Savings
  - Clean Fleet Acquisitions
- Community
  - Home Energy Reports Launched
  - Business Support Program Initiated
  - Electric Vehicle Infrastructure Deployed

# Project: Resource Conservation Mgr

Facility	Electricity Use Reduction (%)	Electricity Cost Savings (\$)	Pollutant Reduction (MT CO2 eq.)
City Hall	6%	\$27,520	165
Facility	Natural Gas Use Reduction (%)	Natural Gas Cost Savings (\$)	Pollutant Reduction (MT CO2 eq.)
City Hall	4%	\$5,352	21
	Total	\$32,872	186

# Project: Traffic Signal Lighting

- LED traffic signals replacing incandescent bulbs; realized savings of:
  - \$188,000 annually in energy costs (baseline 2000)
  - 950 MT CO<sub>2</sub>/year in pollution reduction
- Will complete replacements in 2012



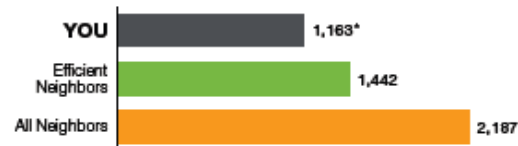
# Project: Greening the Fleet

- 33 hybrid vehicles were added to the Fleet in 2010; projected impacts of:
    - Fuel savings of 11,000 gallons/yr
    - Cost savings of \$30,000/yr
    - Pollution reduction of 90 MT CO<sub>2</sub>/ year
  - By end of 2011:
    - Expect to have 78 new hybrids, grant funded
    - Will have 127 hybrids in the fleet
    - 36% of the 345 light duty vehicles\*
- \*Excludes police cruisers



# Project: Home Energy Reports

## Last 2 Months Neighbor Comparison | You used 19% LESS energy than your efficient neighbors.



\* This energy index combines electricity (kWh) and natural gas (therms) into a single measurement.

How you're doing:



### Who are your Neighbors?

#### ■ All Neighbors

Approximately 100 occupied, nearby homes that are similar in size to yours (avg 1,578 sq ft) and have both electricity and natural gas service

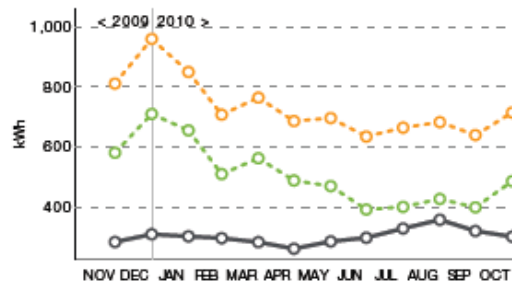
#### ■ Efficient Neighbors

The most efficient 20 percent from the "All Neighbors" group

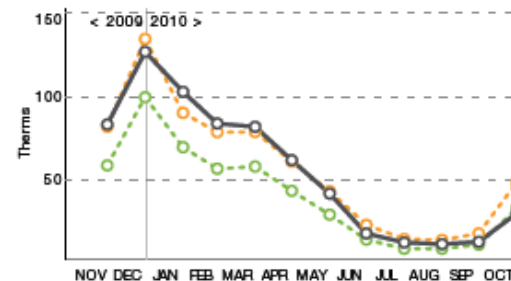
## Last 12 Months Neighbor Comparison

You used **31% LESS** energy than your neighbors.  
This saves you about **\$454** per year.

### ⚡ Electricity | 59% less electricity than your neighbors



### 🔥 Natural Gas | 3% less natural gas than your neighbors



Track your progress and find ways to save at  
[www.psereports.com](http://www.psereports.com)



# Project: Eastside Sustainable Business Alliance





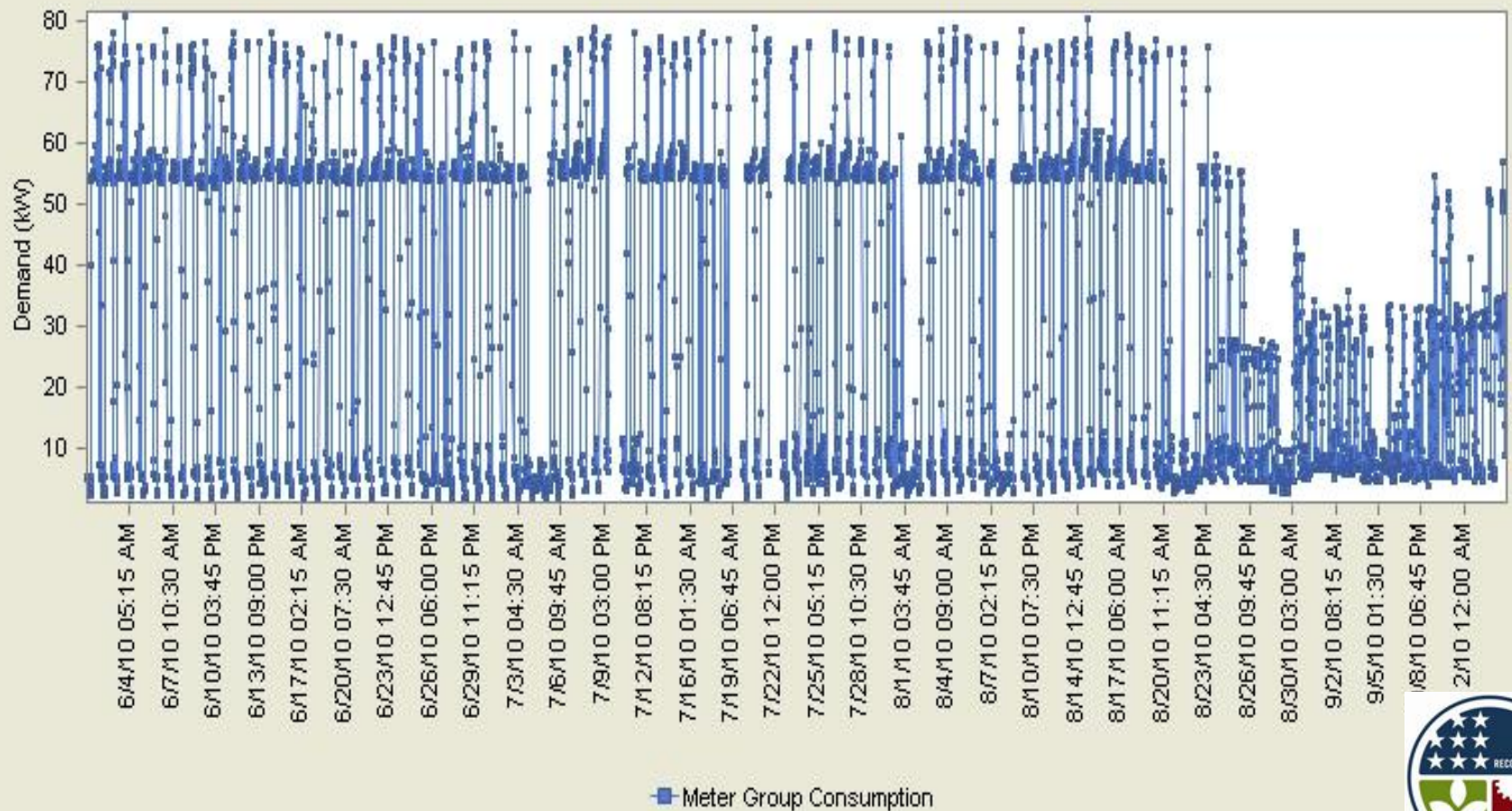
# Project: Electric Vehicle Infrast.



- Inter-jurisdictional effort
- First 2 stations at City Hall
- 14 coming to Community Centers
- Level II & Fast Charge Rollout



# Project: Recreation Facility Lighting

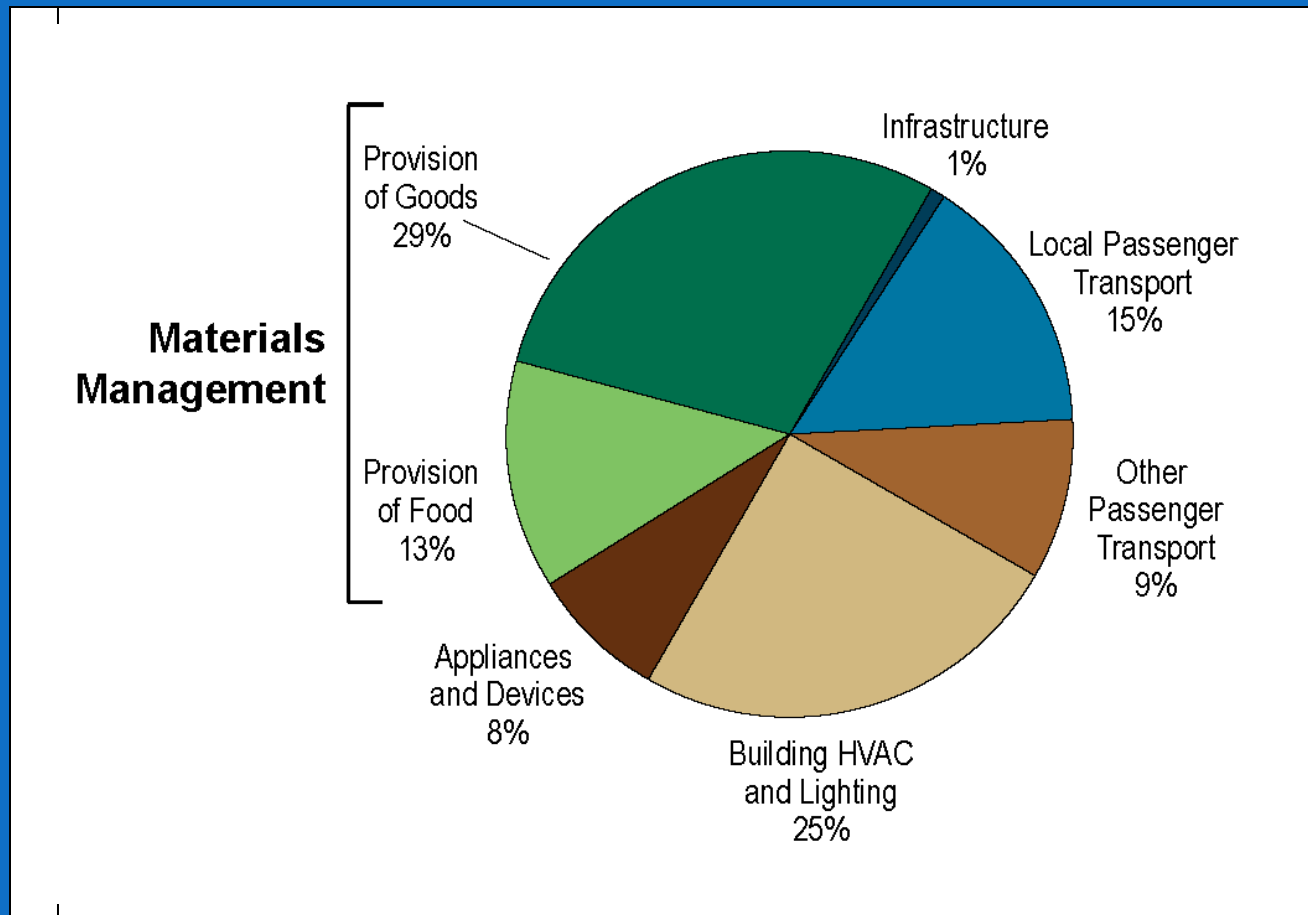


# Policies

- How might the City effect sustainability through Policies?
  - -
  - -
  - -
- What to do if policy-makers don't support the cause?

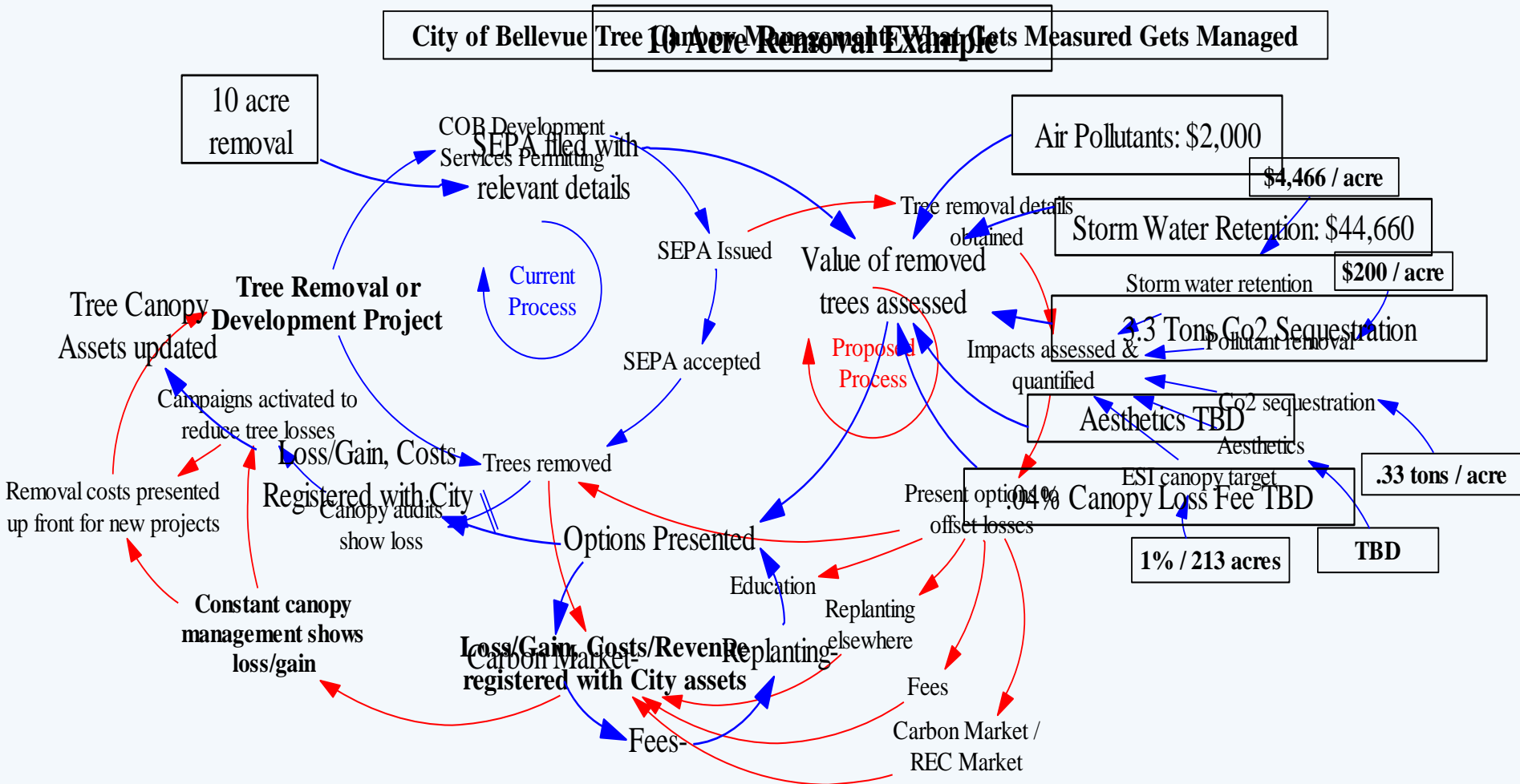
# Changing the Lens

## Systems Based View of Emissions: U.S. GHG Emissions (2006)



Source: Draft values from *Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices*. U.S. EPA. (forthcoming).

# Changing the Lens



# Collaboration

- PPP's – Public Private Partnerships



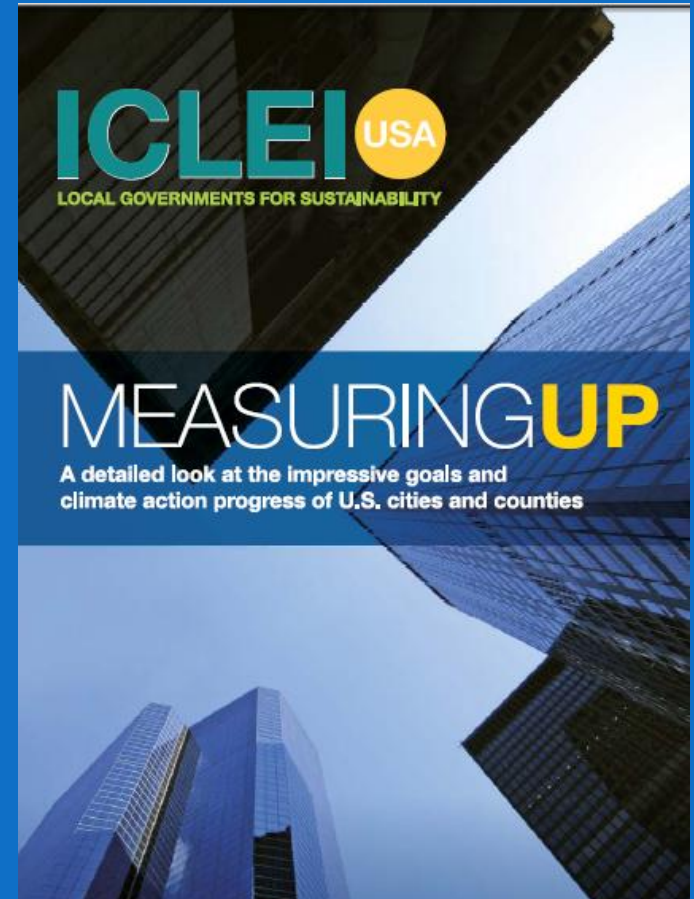
- C-7 New Energy Cities





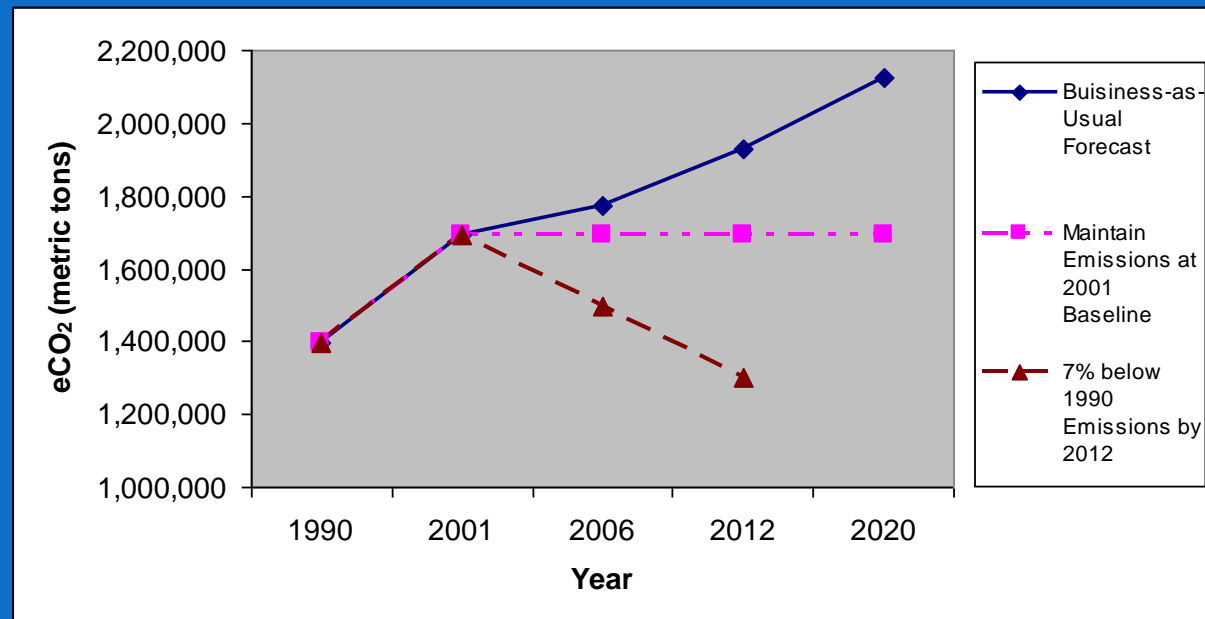
# Marketing & Outreach

- Measuring Up
- “It’s Your City”
- Web Portals
- ESBA
- Carbon Yeti



# Challenges

- Reversing the Trendline
- Data Management
- Tree Canopy Retention
- Marketing
- Engagement
- Institutionalization





# Thank you!

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